

Title (en)
Vacuum heat-insulating block

Title (de)
Vakuumisoliertes Wärmedämmelement

Title (fr)
Elément isolé sous vide contre la chaleur

Publication
EP 1258344 A2 20021120 (EN)

Application
EP 02007992 A 20020410

Priority
JP 2001148887 A 20010518

Abstract (en)

The present invention provides a vacuum heat-insulating block including a honeycomb core, wherein the block structure prevents the honeycomb core having a low bulk specific gravity from collapsing by atmospheric pressure, the block attaining flexibility and sound absorption property. The vacuum heat-insulating block 100 according to the present invention is basically composed of a core utilizing a plurality of layered honeycomb members 50 (formed by bonding a honeycomb core member 51 to a support plate 55) and covering the core with a cover member 70. Moreover, a woven or non-woven fabric 60 having air permeability is disposed between the layers of honeycomb core members 51. <IMAGE>

IPC 1-7
B32B 3/12; F16L 59/065; E04B 1/80; E04C 2/36

IPC 8 full level
F16L 59/06 (2006.01); B32B 3/12 (2006.01); E04B 1/80 (2006.01); E04C 2/36 (2006.01); F16L 59/065 (2006.01); F17C 13/00 (2006.01)

CPC (source: EP US)

**B32B 3/12 (2013.01 - EP US); B32B 15/08 (2013.01 - US); B32B 15/10 (2013.01 - US); B32B 21/02 (2013.01 - US);
E04B 1/803 (2013.01 - EP US); E04C 2/365 (2013.01 - EP US); F16L 59/065 (2013.01 - EP US); F17C 13/001 (2013.01 - EP US);
B32B 2315/085 (2013.01 - US); B32B 2363/00 (2013.01 - US); F17C 2203/0329 (2013.01 - EP US); F17C 2203/0345 (2013.01 - EP US);
F17C 2203/0358 (2013.01 - EP US); F17C 2260/033 (2013.01 - EP US); F17C 2270/0168 (2013.01 - EP US); F17C 2270/0189 (2013.01 - EP US);
Y02A 30/242 (2017.12 - EP US); Y02B 80/10 (2013.01 - EP US); Y10T 428/234 (2015.01 - EP US); Y10T 428/236 (2015.01 - EP US);
Y10T 428/24149 (2015.01 - EP US); Y10T 428/24157 (2015.01 - EP US); Y10T 428/24165 (2015.01 - EP US);
Y10T 428/24331 (2015.01 - EP US); Y10T 428/249953 (2015.04 - EP US); Y10T 428/2913 (2015.01 - EP US)**

Cited by

CN101479098A; NL1027257C2; EP2283190A4; EP1609395A1; US8490365B2; US7376996B2; WO2007147885A1; WO2006041294A1;
WO2009023891A1; WO2006083314A3

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1258344 A2 20021120; EP 1258344 A3 20041208; JP 2002340280 A 20021127; US 2002170265 A1 20021121; US 6739104 B2 20040525

DOCDB simple family (application)

EP 02007992 A 20020410; JP 2001148887 A 20010518; US 12324102 A 20020417